Maintain cooling performance and uptime while extending ammonia refrigeration system life

Preventative maintenance limits downtime and increases safety

Alfa Laval is a leading innovator in the field of plate heat exchangers for ammonia refrigeration systems. Whether your application is commercial refrigeration, industrial refrigeration or anything in between, our service experts can keep you from losing production due to unexpected maintenance or from a safety issue.

Your trusted service solution partner

We don't rest until we know your problems are solved. You can trust Alfa Laval's on-site turnkey service technicians to repair and recondition your semi-welded plate heat exchangers. With regular and proactive maintenance of your heat exchanger, operations are kept trouble-free and predictable.

Don't cry foul, clean

Anytime a heat exchanger takes in unfiltered water from an external water source, there is a risk for debris to degrade the heat transfer process by blocking channels. This fouling increases the pressure drop. Fouling also lowers the evaporation temperature and raises the condensation temperatures of the ammonia refrigeration system.

If the evaporation temperature decreases by 1°C, the energy consumption of the compressor typically increases by 2-4%. The same holds true for the condenser side; a 1°C increase in temperature on the condenser side results in a 3% increase in energy consumption.

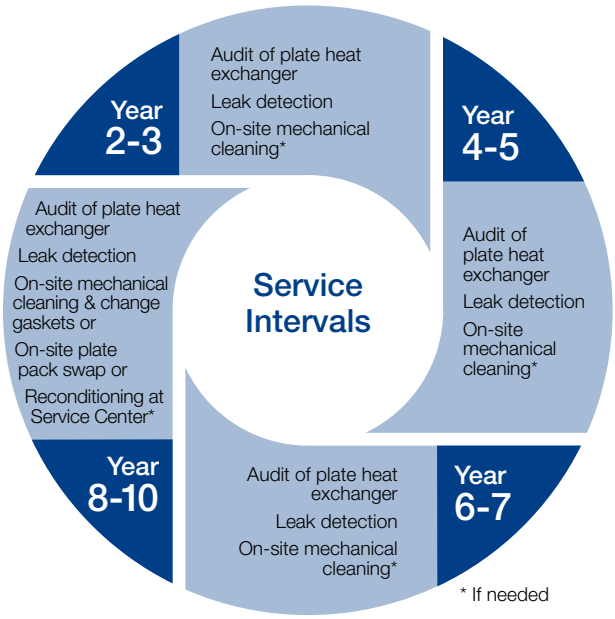
Another source of fouling is inside the heat exchanger cassette. Oil is used to seal the compressor in ammonia chiller systems; however, that same oil can impact performance. If the oil trap is not sufficient and oil is released into the heat exchanger, performance can be reduced. Just 15 microns (.0006") of oil film on the heat exchanger reduces performance by 30% and the gaskets will deteriorate faster.

Inspecting and/or cleaning the heat exchanger every 2-3 years ensures it is running efficiently.

Safety and its impact on downtime

Using ammonia for refrigeration is effective, saves resources and is generally safe. However, because gas leaks cannot be completely prevented, ammonia monitoring is essential. Ammonia deteriorates the elastomer in a heat exchanger. In a well-designed and maintained refrigeration system, a ring gasket should last 8-10 years. Regular inspection and maintenance reduces the risk of production downtime and protects employees.

Preventative maintenance provides peace of mind.



The Bottom Line

What you get with Alfa Laval service:

- Unmatched expertise
- Speed
- Flexibility
- Original, OEM parts
- More than 500,000 parts in stock in the U.S.
- Online, virtual support
- Online, real-time reporting
- Safety trained and certified technicians (OSHA, TWIC)
- Gasket selection support

On-site, turnkey services:

- Plate pack installations (new or reconditioned)
- Minor gasket repairs (glued gaskets)
- Gasket replacements (clip on gaskets)
- Hydrotesting
- Thermal redesign and optimization
- Maintenance training
- Condition and performance review
- Specialized tools to detect fouling
- Skilled technicians to troubleshoot

As a supplier and service partner, our plate heat exchanger technologies, developed with nearly 90 years of experience, form the core of the market's most reliable ammonia refrigeration systems. If you're looking to protect production, maintain employee safety and improve efficiency, contact us today to learn how a partnership with Alfa Laval can safeguard your ammonia refrigeration system.

Visit alfalaval.us
or call 866-253-2528.